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CENTRAL FAX CENTER Patent
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REMARKS

Claims 1-28 remain pending in the application.

The Office Action indicates that claims 7, 9, 16-19 and 24 are allowable if rewritten in independent form. Applicant respectfully requests that this matter be held in abeyance until the Examiner has considered the following remarks.

Applicant's invention features a storage medium for one or more transport streams containing audio visual data. At least one transport stream has embedded location information that specifies a switching destination (target). The switching destination may refer to another time in the same transport stream or to another time in another transport stream. The location information in the transport stream may be used by a television receiver or other media playback device to search for an upcoming switching destination while the device is actively displaying audio visual content.

This allows the television receiver or other media playback device to "jump in time" to a location point specified in the location information without having to access a management table. This allows a smooth transition at switching points providing the viewer with media content having smooth scene transitions. Embedding the location information in the transport stream for example within the format of MPEG packets of video/audio data also eliminates the need for a higher level static transition table, freeing up space on the storage medium.

Claims 1, 2, 20-23, 25, 26 and 28 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Hirayama et al.* (U.S. Pat. No. 5, 630,006). Applicant respectfully traverses.

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"[A]nticipation by inherent disclosure is appropriate only when the reference discloses prior art that must *necessarily* include the unstated limitation. . . ."

Transclean Corp. v. Bridgewood Services, Inc., 290 F.3d 1364, 62 USPQ2d 1865 (Fed. Cir. 2002)

Claim 1 has been amended to recite "searching for the location information by shifting the reference target" to further clarify the claimed invention. Support for this amendment may be found in specification, (Application, Figure 7, Page 50, Lines 5-18).

Hirayama discloses, for example, a DVD having a movie title, with a high level organization stored in a fixed area of the DVD for interacting with the DVD player upon playback. The location information (target) is stored in a high level management table and is not embedded in a dynamic transport stream let alone at a lower level of control information in individual packets of video data. *Hirayama's* management table consists of a volume identity field (VID), a picture information field (PIF), and a data allocation unit (DAT), (*Hirayama*, Column 7, Lines 17-19). The VID is the innermost annular field of the disk 100, (*Hirayama*, Column 7, Lines 19-20). The PIF is the second most innermost annular field surrounding the VID. The DAT is the third innermost annular field, (*Hirayama*, Column 7, Lines 17-19). Thus *Hirayama's* device has a static data structure with data-tables and management information that is pre-defined during the editing process.

At a switching point, the *Hirayama* device suspends the display of audio visual content and access the management table. This technique could result in a discontinuity at each transport stream switching point, presenting a choppy scene transition to the viewer in the environment of the present invention. In contrast, Applicant's transport streams having table information at the

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packet level can be used for dynamically updating program mapping tables, see for example, dependent Claim 4.

Claims 1, 2, 20-23, and 26 recite "a first transport stream that includes location information at a first location thereof". The Office Action asserts that this feature is taught by *Hirayama*, (Office Action, Page 2, Lines 10-13). Applicant traverses this assertion. The cited passage describes *Hirayama's* PIF, (*Hirayama*, Col 7, Figure 8B, Lines 33-41). *Hirayama's* PIF, however, is not embedded in a transport stream but is a part of a management table that consists of a volume identity field, a PIF, and a data allocation table, (*Hirayama*, Column 7, Lines 17-20). Thus "a first transport stream that includes location information" is not disclosed or suggested by *Hirayama*.

Including the location information in the transport stream is important because it eliminates the need to access a management table. This allows a television receiver or audio visual playback device to transition immediately at switching points presenting the viewer with a smooth scene transition.

Claim 25 recites "a first data stream that includes location information". As explained above *Hirayama's* device stores its location information (PIF) in a management table. Thus, including location information in a first data stream is not disclosed or suggested by *Hirayama*.

Claim 28 recites "inserting location information into the first transport stream". *Hirayama's* device accesses location information in a management table and thus inserting location information in a transport stream is also not disclosed or suggested by *Hirayama*.

Claims 3-6, 8, 10 and 12-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hirayama* in view of *Yanagihara* (U.S. Pat. No. 5,899,578).

As set forth in *In re Kahn*, 441 F.3d 977, 987-988 (Fed. Cir. 2006):

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The motivation-suggestion-teaching test picks up where the analogous art test leaves off and informs the *Graham* analysis. [*Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).]

To reach a non-hindsight driven conclusion as to whether a person having ordinary skill in the art at the time of the invention would have viewed the subject matter as a whole to have been obvious in view of multiple references, the Board must provide some rationale, articulation, or reasoned basis to explain why the conclusion of obviousness is correct. The requirement of such an explanation is consistent with governing obviousness law. . . .

* * *

A suggestion, teaching, or motivation to combine the relevant prior art teachings does not have to be found explicitly in the prior art, as "the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. . . . The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." However, rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. This requirement is as much rooted in the Administrative Procedure Act [for our review of Board determinations], which ensures due process and non-arbitrary decision making, as it is in §103.

Yanagihara discloses a digital signal processor that includes a tuner for selecting a transport stream with multiplexed channels, (*Yanagihara*, Abstract). The processor uses a program association table that includes a PID, (*Yanagihara*, Column 4, Lines 54-58). The PID includes information about performing events such as switching, (*Yanagihara*, Column 5, Lines 31-33). Thus *Yanagihara*'s device also uses a program association table for storing location information instead of embedding the information in a transport stream.

Claims 3-6, 8, 10, and 12-15 depend from claim 1 and are patentable for the same reasons as claim 1. *Yanagihara* like *Hirayama* teaches the use of program association table for storing

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location information and fails to disclose or suggest a transport stream that includes location information. This makes claims 3-6, 8, 10 and 12-15 patentable over *Hirayama* in view of *Yanagihara*.

Claim 11 was rejected under 35 U.S.C. 103(a) as being unpatentable over *Hirayama* in view of *Itoh et al* (U.S. Pub. No. 2003/0190153).

Itoh discloses an audio visual recording and reproduction device for optical disks, (*Itoh*, Abstract). The audio visual files written to the disk are recorded on the disk at a duration equivalent to more than three times the seek time, (*Itoh*, Abstract). This enables concurrent recording and reproduction of audio visual files, (*Itoh*, Abstract).

Claim 11 depends from claim 1 and is patentable for the same reasons as claim 1. *Itoh* also fails to disclose a transport stream that includes location information making claim 11 patentable over *Hirayama* in view of *Yanagihara*.

Claim 27 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hirayama* in view of *Kato* (U.S. Pat No 6,950,604).

Claim 27 recites "a first data stream that includes location information" that is not disclosed by *Hirayama* as explained above. *Kato* also fails to disclose or suggest this limitation making claim 27 patentable over *Hirayama* in view of *Kato*.

In summary, the *Hirayama* reference is not an anticipating reference of our current claims and can not provide the advantage realized by the claimed structure of our data arrangement to enable editing between dynamic transmissions of transport streams.

The addition of the *Yanagihara*, *Itoh et al.* and *Kato* secondary references does not meet our claim language nor has there been a rational reasoning provided that would justify the hypothetical combination without hindsight from our present specification.

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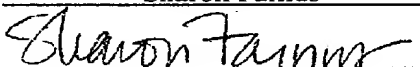
For the reasons stated above, Applicant believes the application is in condition for allowance and early notification of the same is respectfully requested.

If there are any questions with regard to the prosecution of this application, the undersigned attorney can be contacted at the listed phone number.

I hereby certify that this correspondence is being transmitted via facsimile to the USPTO at 571-273-8300 on October 16, 2006.

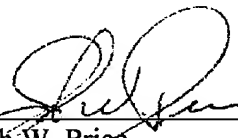
Very truly yours,

SNELL & WILMER L.L.P.

By: Sharon Farnus


Signature

Dated: October 16, 2006



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